

REMARKS

Claims 1, 2, 4, 6, 10 – 12, 14 – 16, 19, 20, 35, 39, 46 – 48, 53, 60, 66, 67, and 70 – 76 were pending in the application. By way of this amendment, claims 6, 35, 39, 46 – 48, 53, 60, 66, and 74 are canceled without prejudice, claims 1, 4, 10, 12, 14, 16, 20, 67, 71 and 73 are amended, and new claims 77 and 78 are added.

Claim 1 has been amended to incorporate the limitation of claim 6, which has been canceled. Claims 4, 10, 12, 14, 16, and 20 have been amended to conform to the amendments to claim 1 and cancellation of claim 6. Claim 20 has also been amended to remove the extra occurrence of the phrase “wherein the unique polynucleotide subsequence of (c) comprises at least one complete open reading frame.” Claim 67 has been amended to recite that the nucleic acid comprises at least one artificially mutated nucleotide relative to SEQ ID NO:1, wherein the mutated nucleotide comprises one or more of: a deleted nucleotide, an inserted nucleotide, or a substituted nucleotide, and to remove the proviso. Claim 71 has been amended to recite that the unique polynucleotide subsequence encodes at least 20, at least 50, at least 100, or at least 200 contiguous amino acid residues of any one of SEQ ID NOs:2 – 8, 11, and 12.” Claim 73 has been amended in view of the presentation of new claim 78, which recites that the unique polynucleotide subsequence of the nucleic acid of claim 67 “encodes at least 50 contiguous amino acid residues of SEQ ID NO:10.” New claim 77 recites that the unique polynucleotide subsequence of the nucleic acid of claim 67 “encodes at least 200 contiguous amino acid residues of any one of SEQ ID NOs:4 – 6, 8, 11, and 12.”

Support for the amendments to the claims can be found throughout the specification and in the originally filed claims, for example at paragraphs 12, 27, 37, 52, and 57 of the published patent application. No new matter has been added. Upon entry of this amendment, claims 1, 2, 4, 10 – 12, 14 – 16, 19, 20, 67, 70 – 73, and 75 – 78 will be pending.

Claim Objections

Claims 71 and 73 have been objected to as allegedly being of improper dependent form for failure to further limit the subject matter of claim 67. Applicants respectfully disagree. Claim 71 depends from claim 67, and the Examiner has included claim 73 in the objection because it depends from claim 71.

Claim 67, as currently amended, is directed to a nucleic acid comprising at least one artificially mutated nucleotide relative to SEQ ID NO:1 and comprising at least one unique polynucleotide subsequence comprising at least 500 contiguous nucleotides of SEQ ID NO:1 or the complementary polynucleotide sequence thereof.

Claim 67 recites that the “at least one unique polynucleotide subsequence” is at least 500 contiguous nucleotides in length. However, claim 67 provides no limitation as to which particular stretch of at least 500 contiguous nucleotides, as selected from the entire length of the 15,225 nucleotides of SEQ ID NO:1 (or its complement), constitutes the “at least one unique polynucleotide sequence”. The recitation in claim 71, as amended, of “at least 20, at least 50, at least 100, or at least 200 contiguous amino acid residues” of particular open reading frames encoding the different proteins of the RSV virus provides a limitation as to where, over the entire length of SEQ ID NO:1 (or its complement), the at least 500 contiguous nucleotides lies. The specified minimum contiguous amino acid residues would be encoded by the at least 500 contiguous nucleotides. For example, the “at least one unique polynucleotide subsequence” of claim 67 could be at least 500 contiguous nucleotides in length and comprise polynucleotides encoding a portion the G protein (SEQ ID NO:12), for example at least 20 contiguous amino acids of G, and comprise polynucleotides encoding a portion of the F protein (SEQ ID NO:8).

Applicants submit that the recitation in currently amended claim 71 “wherein the unique polynucleotide subsequence encodes at least 20, at least 50, at least 100, or at least 200 contiguous amino acid residues of any one of SEQ ID NOs:2 – 8, 11, and 12” **does** properly further limit claim 67. Claim 73, as amended, provides further limitation in that it recites that “the unique polynucleotide subsequence encodes at least 200 contiguous amino acid residues of SEQ ID NO:8 or at least 200 contiguous amino acid residues of SEQ ID NO:11.” In view of the above, Applicants believe that the objection to claims 71 and 73 is improper and should be withdrawn.

Rejections under 35 U.S.C. §112, second paragraph

Claim 74 has been rejected under 35 U.S.C. §112, second paragraph for alleged indefiniteness. Claim 74 has been canceled, rendering the rejection moot. Applicants request that the rejection under 35 U.S.C. §112, second paragraph be withdrawn.

Rejections under 35 U.S.C. §102

Claim 71 has been rejected under 35 U.S.C. §102(b) as allegedly being anticipated by Karron *et al.* (Proc. Natl. Acad. Sci. U.S.A. (1997) 94:13961-13966, “Karron”). The Examiner alleges that Karron discloses a sequence comprising 171 contiguous amino acids that are identical to SEQ ID NO:9 and that Karron discloses a sequence comprising 27 contiguous amino acids that are identical to SEQ ID NO:10. Claim 71 has been amended to recite “The nucleic acid of claim 67 wherein the unique polynucleotide subsequence encodes at least 20, at least 50, at least 100, or at least 200 contiguous amino acid residues of any one of SEQ ID NOS:2 – 8, 11, and 12.” Applicants submit that claim 71, as amended, is not anticipated by Karron. Applicants request that the rejection under 35 U.S.C. §102(b) be withdrawn.

Information Disclosure Statement Filed 25 May 2007

Submitted herewith is a replacement form PTO/SB/08, listing three non-patent literature references, copies of which were provided with the Information Disclosure Statement filed 25 May 2007. The Examiner has indicated on the continuation sheet of the summary for the Office Action mailed 14 September 2007 that the references were considered, but were not initialed because the citations of the references were improper for lack of dates. Applicants submit that the replacement form PTO/SB/08 provides proper citations of the three references, and request that the Examiner initial each citation, date and sign the form, and forward a copy of the form to the Applicants with the next communication.

Conclusion

In view of the foregoing amendments and remarks, Applicants submit that claims 1, 2, 4, 10 – 12, 14 – 16, 19, 20, 67, 70 – 73, and 75 – 78 are in condition for allowance. A

notice of allowance is earnestly solicited. The Examiner may call the undersigned at 302-897-6482, if a telephonic interview would be helpful.

Respectfully submitted,

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